LIST OF CONTENTS

VOLUME 42, NUMBER 1, 1989

Articles

S. C. Mullick and **S. K. Nanda** (*India*) 1 An improved technique for computing the heat loss factor of a tubular absorber

A. Esteves and **C. de Rosa** (*Argentina*) 9 A simple method for correcting the solar radiation readings of a Robitzsch-type pyranometer

M. T. Katzman (*USA*) 15 Assessing regional wind energy resources with biological indicators: a decision-analytic approach

M. Yanadori and **T. Masuda** (*Japan*) 27 Heat transfer study on a heat storage container with a phase change material. (Part 2. Heat transfer in the melting process in a cylindrical heat storage container

J. M. Gordon and **T. A. Reddy** (*Israel*) 35 Stationary statistics and sequential properties of normal beam and global surface radiation on tilted surfaces

J. K. Nayak, S. P. Sukhatme, R. G. Limaye, and **S. V. Bopshetty** (*India*) 45 Performance studies on solar concrete collectors

M. S. Bohn and **H. J. Green** (*USA*) 57 Heat transfer in molten salt direct absorption receivers

C. Riordan, D. Myers, M. Rymes, R. Hulstrom, W. Marion, C. Jennings, and **C. Whitaker** (*USA*) 67 Spectral solar radiation data base at SERI

N. Al-Hamdani, M. Al-Riahi, and **K. Tahir** (*Iraq*) 81 Estimation of the diffuse fraction of daily and monthly average global radiation for Fudhaliyah, Baghdad (Iraq)

Book Reviews

John Twidell (*Glasgow*) 87 *Wind Energy Data for India* by A. Mani and P. A. Mooley

Chris Mattingly (*Birmingham*) 87 *Solar Thermal Energy Storage* by H. P. Garg, S. C. Mullick, and A. K. Bhargava

James Hedstrom (*Los Alamos*) 88 *A European Transient Simulation Model for Thermal Solar Systems* by W. L. Dutre

VOLUME 42, NUMBER 2, 1989

Articles

M. M. Elsayed (*Saudi Arabia*) 89 Optimum orientation of absorber plates

E. F. Passos, J. F. Escobedo (*Brasil*) and **F. Meunier** (*France*) 103 Simulation of an intermittent adsorptive solar cooling system

J. W. Mitchell and **W. A. Beckman** (*U.S.A.*) 113 Theoretical limits for storage of energy in buildings

A. Y. El-Assy and **J. A. Clark** (*U.S.A.*) 121 Thermal analysis of a flat-plate boiling collector having sub-cooled inlet and saturated exit states

K. O'Ferrall Lund (*U.S.A.*) 133 General thermal analysis of serpentine-flow flat-plate solar collector absorbers

W. T. Kierkus and **W. G. Colborne** (*Canada*) 143 Diffuse solar radiation—daily and monthly values as affected by snow cover

F. J. Collado and **J. A. Turégano** (*Spain*) 149 Calculation of the annual thermal energy supplied by a defined heliostat field

M. A. Zaman and **B. K. Bala** (*Bangladesh*) 167 Thin layer solar drying of rough rice

L. D. Jaffe (*U.S.A.*) 173 Test results on parabolic dish concentrators for solar thermal power systems

189 ISES Conference Announcements

191 Reviewers 1987–1988

VOLUME 42, NUMBER 3, 1989

Articles

L. Diabaté, G. Moussu, and **L. Wald** (*France*) 201 Description of an operational tool for determining global solar radiation at ground using geostationary satellite images

A. A. Ghoneim (*Egypt*) 209 Comparison of theoretical models of phase-change and sensible heat storage for air and water-based solar heating systems

J. A. Olseth and **A. Skartveit** (*Norway*) 221 Observed and modelled hourly luminous efficacies under arbitrary cloudiness

P. D. Lund (*Finland*) 235 A general design methodology for seasonal storage solar systems

A. Ecevit, A. M. Al-Shariah, and **E. D. Apaydin** (*Turkey*) 253 Triangular built-in-storage solar water heater

R. Levitan, H. Rosin, and **M. Levy** (*Israel*) 267 Chemical reactions in a solar furnace—direct heating of the reactor in a tubular receiver

H. R. Wilson and **M. Hennies** (*F.R.G.*) 273 Energetic relevance of solar spectral variation on solar cell short circuit current

VOLUME 42, NUMBER 4, 1989

Articles

E. W. Grald and **T. H. Kuehn** (*U.S.A.*) 281 Performance analysis of a parabolic trough solar collector with a porous absorber receiver

B. Sørensen (*Denmark*) 293 Experiments with energy storage in a high-latitude greenhouse

H. Suehrcke and **P. G. McCormick** (*Australia*) 303 The distribution of average instantaneous terrestrial solar radiation over the day

S. Gupta (*India*) 311 Scope for solar energy utilization in the Indian textile industry

C. R. J. Cave and **K. E. Cockshull** (*U.K.*) 319 The effect of using a venetian reflector assembly to improve winter light levels in a single-span glasshouse on the growth of a pot chrysanthemum crop

A. W. Harrison and **C. A. Coombes** (*Canada*) 327 Performance validation of the Perez tilted surface irradiance model

K. G. T. Hollands, L. J. D'Andrea, and **I. D. Morrison** (*Canada*) 335 Effect of random fluctuations in ambient air temperature on solar system performance

M. C. Tleimat and **E. D. Howe** (*U.S.A.*) 339 The use of energy from salt-gradient solar ponds for reclamation of agricultural drainage water in California: analysis and cost prediction

D. L. Critten (*U.K.*) 351 Theoretical design of non-focussed light concentrators based on an assembly of reflectors supported as in a Venetian blind

Letter to the Editor

J. W. Spencer (*Australia*) 353 Comments on *The Astronomical Almanac's Algorithm for Approximate Solar Position* (1950–2050).

Book Review

J. Loferski (*U.S.A.*) 355 *Solar Cells* by M. M. Koltun

357 *Books Received*

VOLUME 42, NUMBER 5, 1989

Articles

S. Lingamurthy, V. Bhanumathi, B. Sethuram and **T. Navaneeth Rao** (*India*) 359 Micellar effect on the reduction of fluorescein dyes by photogenerated ketyl radicals

J. R. Hull and **E. Nielsen** (*U.S.A.*) 365 Steady-state analysis of the rising solar pond

C. H. Strauss, S. C. Grado, P. R. Blankenhorn and **T. W. Bowersox** (*U.S.A.*) 379 Developing financial and energy accounting models for woody biomass systems

J. Wright, R. Perez and **J. J. Michalsky** (*U.S.A.*) 387 Luminous efficacy of direct irradiance: variations with insolation and moisture conditions

R. Almanza, A. Martínez and **G. Segura** (*Mexico*) 395 Study of a kaolinite clay as a liner for solar ponds

B. Berre (*Norway*) and **D. Lala** (*Sweden*) 405 Investigation on photochemical dosimeters for ultraviolet radiation

Y. Castro-Diez, L. Alados-Arboledas and **J. I. Jiménez** (*Spain*) 417 A model for climatological estimations of global, diffuse, and direct solar radiation on a horizontal surface

F. J. Collado, A. Gómez and **J. A. Turégano** 425 *Errata*

VOLUME 42, NUMBER 6, 1989

Articles

Z. Zrikem and **E. Bilgen** (*Canada*) 427 Annual correlations for thermal design of the composite wall solar collectors in cold climates

C. Gueymard (*Canada*) 433 A simplified model for the computation of radiation transmission through a series of semi-transparent plates

A. A. Ghoneim (*Egypt*) and **S. A. Klein** (*U.S.A.*) 441 The effect of phase-change material properties on the performance of solar air-based heating systems

D. I. Stevens, J. E. Braun and **S. A. Klein** (*U.S.A.*) 449 An effectiveness model of liquid-dessicant system heat/mass exchangers

S. A. M. Burek, B. Norton and **S. D. Probert** (*U.K.*) 457 Transmission and forward scattering of insolation through plastic (transparent and semi-transparent) materials

M. A. Rosen and **F. C. Hooper** (*Canada*) 477 A comparison of two models for the angular distribution of diffuse sky radiance for overcast skies

T. J. Lyons (*Australia*) 483 Mesoscale contribution to available wind power potential

P. D. Lund (*Finland*) 487 Effect of climate on major CSHPSS design parameters

S. A. Channiwala and **N. I. Doshi** (*India*) 495 Heat loss coefficients for box-type solar cookers

R. H. B. Exell, C. Sorapipatana and **D. Sukawat** (*Thailand*) 503 The relation between wind speeds at the surface and above the boundary layer in Thailand and India

R. A. Zakhidov (*U.S.S.R.*) 509 Mirror system synthesis for radiant energy concentration—an inverse problem

I Volume 42, 1989—List of Contents and Author Index